

**REMARKS**

Claims 1-29, 33-35, 38-41, 44-47 and 50-53 are pending in the application.

Claims 1-29, 33-35, 38-41, 44-47 and 50-53 have been rejected.

Claims 1, 6, 11, 12, 16, 21, 24, 25, and 50 have been amended.

**Claim Objections**

Claims 12, 24-25, and 50 were objected to due to several listed informalities.

Applicants have amended the indicated claims to correct the informalities raised.

**Rejection of Claims under 35 U.S.C. § 102**

Claims 1-29, 33-35, 38-41, 44-47 and 50-53 stand rejected under 35 U.S.C. § 102(b) as being unpatentable over Pasi et., (“Pasi”). Applicants respectfully traverse this rejection.

The Office Action relies on Pasi in rejecting each of the listed claims. While not conceding that Pasi is prior art, but instead to present the claims in condition for allowance, Applicants have chosen to overcome the Examiner’s rejection by amendments that more clearly distinguish the claims over Pasi. Applicants’ amendments are made without prejudice to Applicants’ right to establish, for example in a continuing application, that Pasi is not prior to an invention now or hereafter claimed.

**Independent Claims 1, 6, 11, 16 and 21:** Applicants respectfully submit that Pasi does not disclose each limitation of independent Claims 1, 6, 11, 16 and 21, as

amended, and therefore Pasi cannot anticipate those claims or any claims that depend therefrom. In the below discussion, Applicants further respond to the positions expressed in the Office Action.

Claims 1, 6, 11, 16 and 21 have each been amended to include a limitation corresponding to:

choosing a class with which to associate an object, wherein the class is chosen such that every attribute associated with the class has a non-null value used to describe the object.

*See, e.g., Claim 1.* Applicants respectfully submit that Pasi provides no disclosure of choosing a class to associate with an object such that every attribute associated with the chosen class has a non-null value used to describe the object.

The claimed invention prevents an object from being associated with null attributes (e.g., resulting from a child class having associated attributes that are unnecessary or undesirable in describing an object at that child level). As described in the specification, this results in an advantage of less memory space being consumed by objects in a child class. In order to achieve this result, a class is chosen to be associated with an object based on a criteria that the class has a sufficient number and type of attributes such that every attribute associated with the class will have a non-null value describing the object. That is, the chosen class will have no more associated attributes than are necessary to describe the object.

Pasi does not recognize the problem or solution of the present invention. As disclosed, Pasi does not perform an association of classes with objects such that each class attribute describing the object will have a non-null value. Instead, Pasi discloses

placing objects in classes without regard to whether attributes have null values. Only after associating an object with a class, if an attribute has a null or an imprecise value, does Pasi discloses generating non-null or more precise values using fuzzy-set based inheritance relationships to fill those null values.

[A] method to compute default values for unknown objects' attributes is proposed, based both on the association of typical values with the attributes in the intensional definition of a class and on the application of a prioritized aggregation operator to combine typical values appearing in an inheritance structure.”

*See, e.g., Pasi, p. 556. (Abstract)*

This method makes it possible to address two distinct cases of incompleteness of the value of an objects' attribute.

- (1) The value of the object's attribute is unknown. In this case, the proposed method allows one to compute a default value for it.
- (2) The value of an objects' attribute is imprecisely known and it is specified by means of a possibility distribution. In this case, the typical value stored at the class level can be used to refine the knowledge about the imperfect attribute value.

Pasi, p. 557 (column 1); *see also* Pasi, p. 562 (column 1). Applicants respectfully submit that such calculation of default or refined values for attributes that would otherwise be null does not provide disclosure of the above-quoted amended claim limitation. Even were Pasi to construed to describe inheritance of non-null values, Pasi fails to describe a situation in which all there is to inherit is a null value (i.e., no default exists). For instance, the example described at Pasi, p.562 (column 1) provides no disclosure for how a person with no hair is taken into account. Such state would result in a null value entry or an erroneous default / refined value.

Further, Applicants respectfully submit that Pasi teaches away from the claimed invention by allowing inheritance of null values and subsequently filling those null values

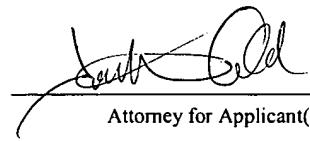
(Pasi) versus preventing inheritance of a null attribute value in the first place by selecting appropriate classes (the present invention).

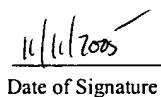
Claims 1-6, 11, 16 and 21 include additional amendments designed to provide consistency with the above-quoted amended claim limitation, but which Applicants respectfully submit do not otherwise narrow the scope of the claims. For at least the above reasons, Applicants respectfully submit that Claims 1, 6, 11, 16 and 21, as amended, and all remaining claims dependent therefrom (Claims 2-5, 7-10, 12-15, 17-20, 22-29, 33-35, 38-41, 44-47, and 50-53) are in condition for allowance and request Examiner's reconsideration of the rejection and indication of same.

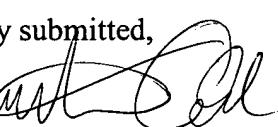
### CONCLUSION

In view of the amendments and remarks set forth herein, the application and the claims therein are believed to be in condition for allowance without any further examination and a notice to that effect is solicited. Nonetheless, should any issues remain that might be subject to resolution through a telephonic interview, the Examiner is invited to telephone the undersigned at 512-439-5090.

I hereby certify that this correspondence is being deposited with the United States Postal Service as First Class Mail in an envelope addressed to: Mail Stop Amendment, COMMISSIONER FOR PATENTS, P. O. Box 1450, Alexandria, VA 22313-1450, on November 11, 2005.

  
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Date of Signature

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